

IN THE CLAIMS

1-55. (Cancelled)

1 56. (Currently Amended) A system providing peripheral component device
2 interconnection, comprising:
3 a peripheral device processor for controlling operation of the peripheral device; and
4 a host messaging unit, coupled to the peripheral device processor, but separate from
5 the peripheral device processor, the host messaging unit retrieving host commands from a
6 host memory of a ~~discrete~~ host separate from the host messaging unit without ~~adding process~~
7 ~~loading to the use of the processor of a peripheral device processor~~, validating the retrieved
8 host ~~command~~ commands and ~~asynchronously~~ signaling to the host memory a successful
9 asynchronous transfer of the host commands from host memory to the processor of the
10 peripheral device host messaging unit.

1 57. (Currently Amended) The system of claim 56, wherein the host messaging
2 unit retrieves host commands from a host memory of a ~~discrete~~ the host without adding
3 process loading to a host processor of the ~~discrete~~ host.

1 58. (Currently Amended) The system of claim 56, wherein the host messaging
2 unit provides signaling between the peripheral device and the discrete host asynchronous to
3 operation of the ~~discrete~~ host and the peripheral device.

1 59. (Currently Amended) The system of claim 56, wherein the host messaging
2 unit is disposed external to the peripheral device and provides signaling between a plurality
3 of processors of peripheral devices and the ~~discrete~~ host, the operation of the host messaging
4 unit being asynchronous to operation of the ~~discrete~~ host and the processors of the peripheral
5 devices.

1 60. (Previously Presented) The system of claim 56, wherein the host
2 messaging unit comprises:

3 a read controller, coupled to the bus, for determining when the host commands have
4 been provided to the host memory and for retrieving the host commands directly from the
5 host memory via direct memory access asynchronous to the operation of the host processor
6 and the peripheral device;

7 a write controller, coupled to the bus and to the read controller, the write controller
8 clearing the host memory to allow the host to infer that the host command has been read by
9 the host messaging unit;

10 a validator, coupled to the write controller and the read controller, the validator
11 determining a validity of host commands retrieved from the host memory;

12 a read clock, coupled to the read controller, the read clock providing a signal for
13 initiating reading of host commands from the host memory by the read controller; and

14 a busmaster command engine, coupled to the validator, read controller and bus, the
15 busmaster command engine initiating the command retrieval from the host memory when the
16 busmaster command engine receives a signal from the ~~discrete~~ host indicating host
17 commands are available in the host memory.

1 61. (Previously Presented) The system of claim 60, wherein the busmaster
2 command engine comprises a register programmable for indicating that the command is
3 available to be retrieved from the host memory.

1 62. (Previously Presented) The system of claim 60, wherein the read clock
2 is programmable to allow predetermined retrieval intervals.

1 63. (Previously Presented) The system of claim 60, wherein the read clock
2 restarts the predetermined interval after the host commands are retrieved from the host
3 memory.

1 64. (Canceled)

1 65. (Currently Amended) A method of servicing a peripheral component
2 interconnect device, comprising:
3 providing a host messaging unit operatively disposed between a ~~discrete~~ host separate
4 from the host messaging unit having a host processor and a processor of a peripheral device
5 ~~processor~~ for providing a signal interface that operates asynchronously with respect to the
6 operation of the host processor and [[a]] the processor of the peripheral device;
7 receiving at the host messaging unit a signal indicating that the host processor has
8 loaded a host command into host memory coupled to the host processor;
9 retrieving, using the host messaging unit, the host commands from host memory
10 without ~~adding process loading to~~ the use of the processor of the peripheral device ~~processor~~;
11 validating the retrieved host ~~command~~ commands at the host messaging unit; and
12 clearing the host memory by the host messaging unit to allow the ~~discrete~~ host to
13 infer that the host command has been read by the host messaging unit; and
14 providing the host command to the processor of the peripheral device ~~processor~~ for
15 processing by the peripheral device processor.

1 66. (Currently Amended) The method of claim 64 further comprising retrieving,
2 using the host messaging unit, the host commands from host memory without adding process
3 loading to the host processor of the ~~discrete~~ host.

1 67. (Previously Presented) The method of claim 64, wherein the retrieving
2 the host command directly from the host memory further comprises providing a clock to
3 control the initiation of the retrieval of the host command from the host memory at
4 predetermined intervals.

1 68. (Currently Amended) An article of manufacture comprising:
2 a program storage medium readable by a computer, the medium tangibly embodying
3 one or more programs of instructions executable by the computer to perform operations for
4 reducing bus transfer overhead between a host processor and a peripheral component
5 interconnect device processor, the operations comprising:
6 providing a host messaging unit operatively disposed between a ~~discrete~~ host separate
7 from the host messaging unit having a host processor and a processor of a peripheral device
8 ~~processor~~ for providing a signal interface that operates asynchronously with respect to the
9 operation of the host processor and [[a]] the processor of the peripheral device;
10 receiving at the host messaging unit a signal indicating that the host processor has
11 loaded a host command into host memory coupled to the host processor;
12 retrieving, using the host messaging unit, the host commands from host memory
13 without ~~adding process loading to~~ the use of the processor of the peripheral device ~~processor~~;
14 validating the retrieved host ~~command~~ commands at the host messaging unit; and
15 clearing the host memory by the host messaging unit to allow the ~~discrete~~ host to
16 infer that the host command has been read by the host messaging unit; and
17 providing the host command to the processor of the peripheral device ~~processor~~ for
18 processing by the peripheral device processor.